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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,026	02/03/2004	Jerry L. Brown	713629.new	2025
27128	7590	06/30/2004	EXAMINER	
BLACKWELL SANDERS PEPER MARTIN LLP			TESKIN, FRED M	
720 OLIVE STREET			ART UNIT	
SUITE 2400			PAPER NUMBER	
ST. LOUIS, MO 63101			1713	

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/708,026	Applicant(s) BROWN ET AL.	
	Examiner Fred M Teskin	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 9-11, 13, 15-21 and 23 is/are allowed.
- 6) ☒ Claim(s) 5-8, 12, 14, 22 and 24-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

Claims 1-27 are currently pending and under examination in this division of prior copending application no. 10/120,009.

Claims 5-8, 12, 14, 22 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5 [and claims dependent thereon], 12, 14, 22 and 24 are indefinite due to improper Markush language in the recitations "selected from phenylcyclohexane ... **or** mixtures thereof"; "selected from nylon 6 ... **or** high-density ... polyethylene" and "selected from poly(methylmethacrylate) ... **or** polystyrene". "Selected from the group consisting of ... **and** ..." is proper; see MPEP 2173.05(h). Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25-27 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. 4252969 to Broering et al or U.S. 5736621 to Simon et al.

Claims 25-27 are drawn to articles produced by the process of claims 1, 4 and 15, respectively.

Broering et al exemplify the preparation of polyethylene product in a reactor equipped with a cooling jacket through which a heat transfer fluid (Dowtherm) is circulated to maintain the temperature in the reactor at about 220°C (Examples 1 and 4-9) or in the range from 209° to 221°C (Example 13). The product is generally described as a relatively high molecular weight polymer and is said to find use in the preparation of molded or formed shapes (col. 11, lines 17-20).

The polyethylene product of Broering et al is a species of the "temperature-sensitive polymer" from which the claimed articles are produced, according to applicants' definition of that expression (see, e.g., specification parags. [0016] and 0022]). Furthermore, the patentees' product is manufactured at temperatures below those indicated herein as being detrimental to the quality of the produced articles (i.e., about 245°C; *cf.*, parag. [0005]), and therefore would be expected to be of comparable quality to the claimed articles.

Simon et al disclose the manufacture of (co)polyesters in a liquid heat transfer medium that is inert, free of aromatic structural groups and has a boiling point from 200° to 320°C, particularly from 240° to 285°C (col. 1, lines 6-9 and col. 5, lines 5-8). The manufacture of (co)polyesters employing mixtures of aliphatic hydrocarbons as

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heat transfer medium is demonstrated; see the working examples in Table 1. While the specific heat transfer mediums employed by Simon et al have boiling ranges that fall outside the boiling point range recited in claim 1, the (co)polyester products are nonetheless characterized as of "very high quality" and "excellent purity" (col. 1, line 15 and col. 4, lines 32-35), and polyesters are another species of "temperature-sensitive polymer" from which the instantly claimed articles can be made.

Although neither reference teaches the use of a heat transfer fluid having a boiling point and a melting point as per claim 1, this *process* difference is not necessarily determinative of patentability as to the ultimate products being claimed. This is especially true given that the prior art products are either manufactured at temperatures below 245°C (Broering et al) or described in terms of "very high quality" and "excellent purity" (Simon et al).

Where, as here, a product-by-process claim is rejected over a prior art product that appears to be identical, although produced by a different process, the burden properly shifts to applicants to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 195 (Fed. Cir. 1983). This is especially true given the lesser burden of proof on the Office in making out a case of *prima facie* obviousness for product-by-process claims, because of their peculiar nature (M.P.E.P. 2113).

Claims 1-4, 9-11, 13, 15-21 and 23 are allowable over the prior art of record. Claims 5-8, 12, 14, 22 and 24 would be allowable if amended or rewritten to overcome the rejection under 35 U.S.C. 112 set forth in this Office action.


The following is a statement of reasons for the indication of allowable subject matter: the use of a heat transfer fluid having a composition and a boiling and melting point as specified in claim 1 to control temperature during a process for manufacturing temperature-sensitive polymers is not disclosed nor fairly suggested in any prior art document(s) located or identified by the examiner as of the date of this Office action.

Any inquiry concerning this communication should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FMTeskin/06-25-04


FRED TESKIN
PRIMARY EXAMINER
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